

Work Order ID 76441

76441

Page 1

November-14-11 2:27:23 PM

Item ID: D205-634-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Replacement Skidtube
 Start Date: 14/11/2011 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 30/11/2011 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: M.C.J Date: 11/11/11 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2580-041	Rev.E

100	DOCUMENT CONTROL	0.00							
100									
DC	Memo	0.00							
Document Control	Photocopy D205-634 bluefile & type labels per PPP D205-634-041 CHG002								

110	BENDING MACHINE - SKIDTUBES	0.00							
110									
CNC Bend 1	Memo	0.00							
CNC Delta 100 Bender	1-Bend as per program D2580.C on CNC Bender and Folio 16								
	2-Cut tubes as per Dwg. D2580								
	3- scribe batch# in aft end of tube								

> DP 11-11-17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Page 2

November-14-11 2:27:23 PM

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Item Name: Replacement Skidtube

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Start Date: 14/11/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 30/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
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Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120		0.00							
120									
Skidtubes	Memo	0.00							
Skidtubes	1- Deburr ends and remove bending marks					1			
	2- Prepare tube for welding as per QSI 004								
130	QC5- Inspect part completeness to step on W/O	0.00							
130									
QC	Memo	0.00				1	0		
Quality Control									

BB 11/11/21

1 0 BE 11-11-21

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod.Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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November-14-11 2:27:23 PM

76441

Page 3

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Start Date: 14/11/2011 Start Qty: 1.00

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Customer:

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140		0.00							

140

Skidtubes

Skidtubes

Memo

0.00

1-Weld step D2576 as per Dwg. D2580 and QSI 004
A/R Aluminum Rod *M118735*

BE11-11-21

2-Grind welds on step as per Dwg D2580

SAD 11-11-21

3-Weld spacers as per dwg D2580

A/R M118735 BE11-11-21

3- *** N/A**** Insert D4202-1 spacer, swage as per QSI002 and trim/ grind
flush per QSI002 and dwg. Hold x-bolt with DT9701 Use tube expander 1/2
x17G to start expansion and finish with 1/2 x 18G to achieve dwg dimension.

4-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64",
adjust stopper not to hit web. Debur

OK 11/11/21

6-Drill pilot holes for aft cap using DT 8215 Open holes to 0.208". Debur

7-Drill pilot holes for Tow ring using DT8091, open to .640" and Debur

SAD 11-11-22

C-Bore

DP 11-11-22

Dart Aerospace Ltd

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76441

Page 4

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 14/11/2011 **Start Qty:** 1.00 ***1***

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Reference:

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Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

150 QC10- Inspect visual per QSI004- ground welds

0.00
Sululzz

150

QC Memo

0.00

Quality Control

160 QC5- Inspect part completeness to step on W/O

0.00 *Solutr*

160

QC Memo

0.00

Quality Control

170 Pressure Wash per QSI005 4.3

0.00

170

HandFinish Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch and leave fwd cap out of solution.

IX Ø m. f 11/11/22

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____
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76441

Page 5

November-14-11 2:27:23 PM

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
180 Powdercoat Powder Coating									
	Memo START TIME: 7:50 OVEN TEMPERATURE: 320°F FINISH TIME: 8:20	0.00							IX of m. 4/11/23
190	QC3- Inspect Part Finish	0.00							
190 QC Quality Control									
	Memo	0.00							1 of m. 4/11/23

m118439

W/O:		WORK ORDER CHANGES					
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Page 6

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Cust Item ID:

Required Date: 30/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200		0.00							
200 HandFinish	Memo	0.00							
Hand Finishing	1-Install inserts & wearplates & Gaskets as per Dwg. D2580. Use a drop of Sikaflex on insert holes before installing wearplates A/R Sikaflex-291 <u>1119443</u> Sikaflex expire date: <u>12101</u>								
	2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580								
	3-Inspect for foreign object per QSI 024								
	4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with Sikaflex. Clean excess adhesive A/R Sikaflex-291 <u>1119443</u> Sikaflex expire date: <u>12101</u>								
	5-Wing Walk as per Dwg D2580 and QSI 005 4.4 Batch: <u>11118786</u>								

1 0 11/11/23

W/O:		WORK ORDER CHANGES					
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Page 7

November-14-11 2:27:23 PM

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 Reference:

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 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210 *210* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for Foreign objects per QSI 024	0.00 0.00							
220 *220* Packaging Packaging Packaging	Packaging Memo Identify and pack for shipping as per PPPD205-634-041 Location: _____ PPP Rev: _____	0.00 0.00							
230 *230* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							

Swing

JP

76440

11/11/23

11/11/23

MF 11-11-23

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Picklist Print

November-14-11 2:27:27 PM

Page 1

Work Order ID: 76441

76441

Parent Item: D205-634-041

D205-634-041

Parent Item Name: Replacement Skidtube

Start Date: 14/11/2011

Required Date: 30/11/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:N 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30
KJ IPP Rev P 10.02.19
per PAR09-043 EC verified by:DD
IPP Rev. O 06.02.28 Added paperwork EC
IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM IPP Rev:Q
10.12.01 as per chg003 DD ver:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D4202-1 Manufactured No

D4202-1

D2579

Spacer

BE11-11-21

B76002 *20

Location

Loc Qty

Loc Code

LG002

492

66929

106

67129

196

67308

1

67430

140

72639

49

D2580-1 Manufactured No

D2580-1

205 Skidtube bent detail

110

Each

5.0000

1

1

DP 11-11-17

Location

Loc Qty

Loc Code

LG

76511

3

72965

1

75282

2

ST046

2

75284

2

D

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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November-14-11 2:27:27 PM

Page 2

Work Order ID: 76441

76441

Parent Item: D205-634-041

D205-634-041

Parent Item Name: Replacement Skidtube

Start Date: 14/11/2011

Required Date: 30/11/2011

Start Qty: 1.00

Required Qty: 1.00

D2576-3 Manufactured No

140 Each 110.0000 1 1

D2576-3

Step (maching detail)

**

BE 11-11-21

Location

Loc Qty

Loc Code

LG

110

66156

10

70883

50

74136

50

D2855 Manufactured No

200 Each 10.0000 1 1

D2855

Cap

**

u u u u 23

Location

Loc Qty

Loc Code

FP007

10

65519

2

65569

8

AN3-5A Purchased No

200 Each 912.0000 2 2

AN3-5A

Bolt

**

u u u u 23

Location

Loc Qty

Loc Code

ST350

912

115371

46

117423

366

118626

300

119355

200

AN960JD10L NAS1149D0332J Purchased No

200 Each 0.0000 2 2

***AN960JD10I ***

Washer

**

1118389 (x2) u u u u 23

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Picklist Print

November-14-11 2:27:27 PM

Work Order ID: 76441

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Parent Item: D205-634-041

D205-634-041

Parent Item Name: Replacement Skidtube

Start Date: 14/11/2011

Required Date: 30/11/2011

Start Qty: 1.00

Required Qty: 1.00

ALS7-1032-130

Purchased

No

200

Each

1,985.000

50

50

AI S7-1032-130

Insert

**

HL 11/11/23

Location

Loc Qty

Loc Code

ST281

113

117717

27

118966

86

ST282

1872

119530

1872

x50

AN3C4A

Purchased

No

200

Each

2,151.000

50

50

AN3C4A

BOLT

**

HL 11/11/23

Location

Loc Qty

Loc Code

ST350

2151

117313

2

117688

5

117872

22

118112

16

118451

2

118706

142

118838

962

119328

1000

x50

AN960C10L

NAS1149C0332

Purchased

No

200

Each

0.0000

50

50

***AN960C10I ***

washer

**

11/11/24 (x50) HL 11/11/23

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____
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Work Order ID: 76441

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Parent Item: D205-634-041

D205-634-041

Parent Item Name: Replacement Skidtube

Start Date: 14/11/2011

Required Date: 30/11/2011

Start Qty: 1.00

Required Qty: 1.00

D3566-13	Manufactured	No	200	Each	30.0000	1	1
D3566-13						**	yl 11/11/23
Gasket							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP	29	
73322	29	xl
FP014	1	
68341	1	

D3566-5	Manufactured	No	200	Each	30.0000	1	1
D3566-5						**	yl 11/11/23
Gasket							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP002	30	
74387	8	xl
75069	22	

D3566-1	Manufactured	No	200	Each	33.0000	2	2
D3566-1						**	yl 11/11/23
Gasket							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP002	31	
73303	5	xl
74518	26	
FP015	2	
68924	2	

D3564-11	Manufactured	No	200	Each	5.0000	1	1
D3564-11						**	B74075 yl 11/11/23 (xl)
Wearshoe							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP019	5	
73146	5	

Dart Aerospace Ltd

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Page 5

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Parent Item Name: Replacement Skidtube

Start Date: 14/11/2011

Required Date: 30/11/2011

Start Qty: 1.00

Required Qty: 1.00

D3564-13

Manufactured No

200

Each

17.0000

1

1

D3564-13

Wearshoe

**

11/11/23

Location

Loc Qty

Loc Code

FP001

16

73323

16

X1

FP017

1

71594

1

D3564-9

Manufactured No

200

Each

16.0000

1

1

D3564-9

Wearshoe

**

11/11/23

Location

Loc Qty

Loc Code

FP

11

73345

11

X1

FP019

5

67590

4

69943

1

D3564-5

Manufactured No

200

Each

22.0000

1

1

D3564-5

Wearshoe

**

11/11/23

Location

Loc Qty

Loc Code

FG

2

34806

2

FP001

12

74543

12

FP19

8

73330

8

X1

W/O:		WORK ORDER CHANGES					
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November-14-11 2:27:28 PM

Page 6

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D205-634-041

Parent Item Name: Replacement Skidtube

Start Date: 14/11/2011

Required Date: 30/11/2011

Start Qty: 1.00

Required Qty: 1.00

D2594-3 Manufactured No

200

Each

736.0000

16

16

D2594-3

O-Ring, 205 Skidtube

11/11/23

Location

Loc Qty

Loc Code

FP004

198

B

73490

198

FP-A

538

65518

41

66952

199

73490

298

x16

D2594-1 Manufactured No

200

Each

352.0000

16

16

D2594-1

Plug, 205 Skidtube

11/11/27

Location

Loc Qty

Loc Code

FP

352

73401

352

B74442

x16

W/O:		WORK ORDER CHANGES					
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LIST OF MATERIALS					
ITEM	QTY -041	QTY -045	QTY -047	PART NUMBER	DESCRIPTION
1	X			D2580-041	SKIDTUBE ASSEMBLY
2		X		D2580-045	SKIDTUBE ASSEMBLY
3			X	D2580-047	SKIDTUBE ASSEMBLY
4	1	1	1	D2500-1-190	EXTRUSION
5			16	D2570	BUSHING
6	1	1	1	D2576-3	STEP
7	20	24	25	D2579	SPACER
8	16	16	8	D2594-1	PLUG
9	16	16	8	D2594-3	O-RING
10	1	1	1	D2596	205 WEB
11	1	1	1	D2855	AFT CAP
12	1	1		D3564-5	WEARSHOE
13	1	1		D3564-9	WEARSHOE
14	1	1		D3564-11	WEARSHOE
15	1	1		D3564-13	WEARSHOE
16	2	2		D3566-1	GASKET
17	1	1		D3566-5	GASKET
18	1	1		D3566-13	GASKET
19			1	D4406-041	WEARPLATE ASSEMBLY
20			1	D4406-043	WEARPLATE ASSEMBLY
21	50	50		ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
22	50	50		AN3C4A	BOLT
23	2	2	2	AN3-5A	BOLT
24			8	AN4-45A	BOLT
25	50	50		NAS1149C0332R	WASHER (AN980C10L)
26	2	2	2	NAS1149D0332J	WASHER (AN980JD10L)
27			8	MS21042-4	NUT (OR MS21042L4)

GENERAL NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB
POWDER COAT ASSEMBLY (-041/-047) GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
POWDER COAT ASSEMBLY (-045) GREEN SANDEX (REF 4.3.5.8) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4.
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: D2580-041 = 34.5 lbs
D2580-045 = 34.5 lbs
D2580-047 = 37.7 lbs
- 8) WELDING PER DART QSI 004.
- 9) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 10) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 11) USE DART DRILL TEMPLATE DT8217 & DT8937 ONLY FOR D2580-041/-045 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTIONS B-B AND F-F (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND NAS1149C0332R WASHERS WITH SIKAFLEX-241/291.
- 12) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES FOR D2580-041/-045 AND 8 PLACES FOR D2580-047)
- 13) IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE WITH THE SPACER AT THIS LOCATION

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WORK ORDER
NO. 76441

E	ADD D2580-047 (ZN C4-7) AND D2580-7 (ZN B3-8); INCLUDED DEO D2580-D-1; REFORMATTED DRAWING TO CURRENT STANDARDS; DT8217 & DT8937 WAS TD2577-205 (ZN C4-1)	RF	11.06.21
D	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/ 9183	PH	07.04.05
C	REDRAWN, INCLUDED DEO 9094/ 9097	CP	98.08.26
B	AS MANUFACTURED	DS	96.12.02
A	NEW ISSUE	DS	96.09.18
REV.	DESCRIPTION	BY	DATE
DESIGN	#		
DRAWN	RF		
CHECKED	10		
MFG. APPR.	10		
APPROVED	10		
DE APPR.	10		
DATE	11.06.21		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA
DRAWING NO. D2580
REV. E
SHEET 1 OF 8
TITLE 205 SKIDTUBE ASSEMBLY
SCALE NTS

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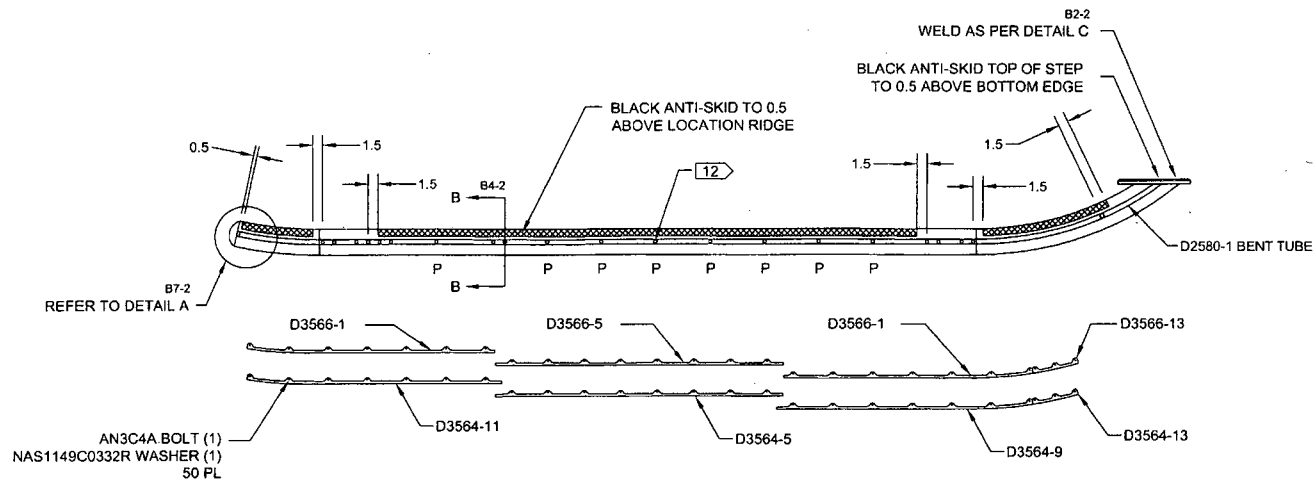
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

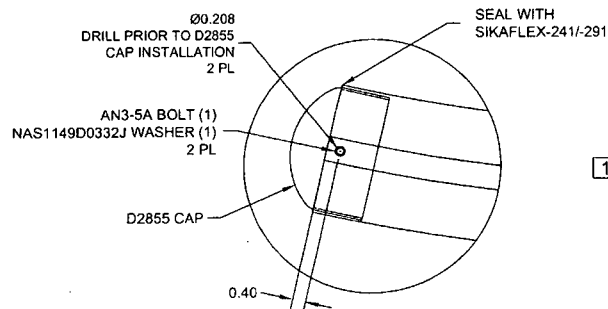
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

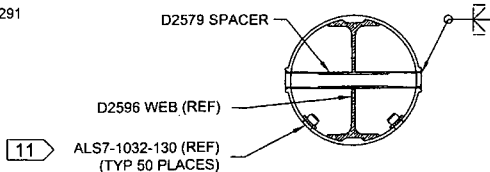


D2580-041 ASSEMBLY DETAIL

DETAIL A C7-2
SCALE 5X

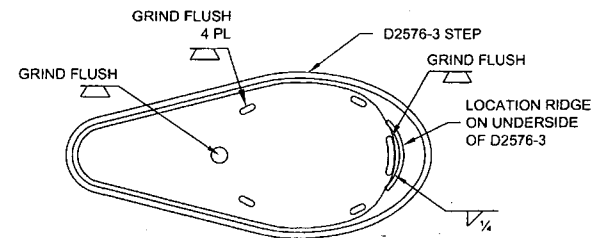


SECTION B-B D5-2
SCALE 5X



AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:
1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP

DETAIL C D3-2
SCALE 5X



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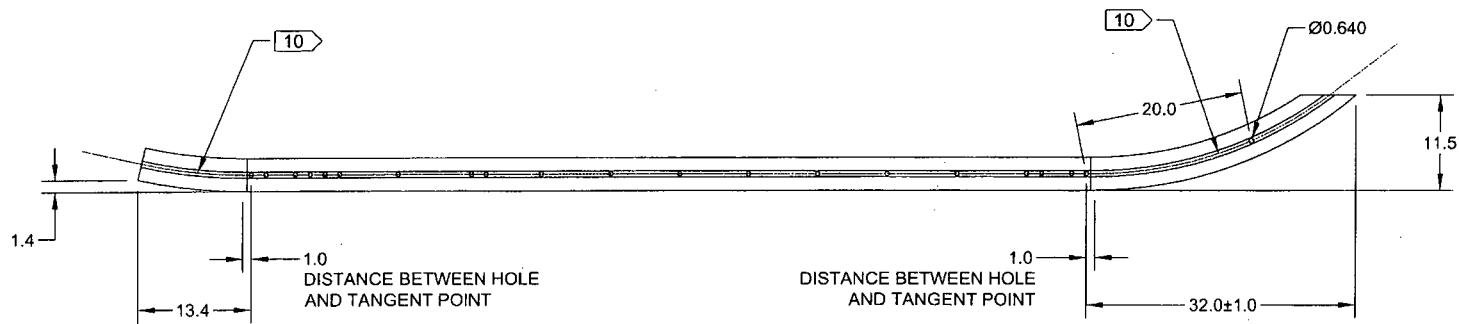
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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D2580-1 BENT TUBE
(MAKE FROM D2580-101 TUBE)

26441

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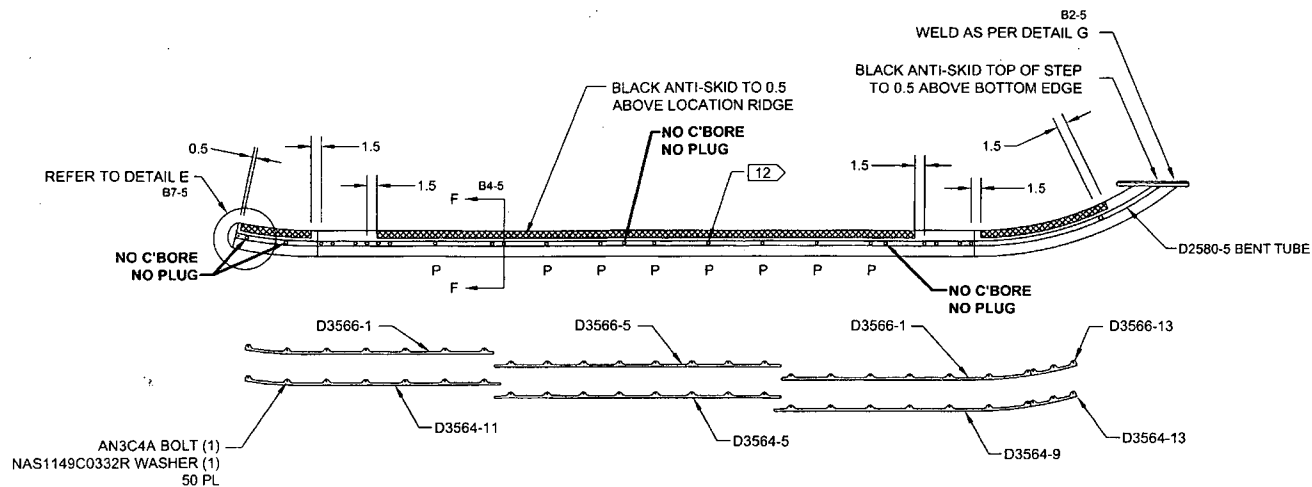
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

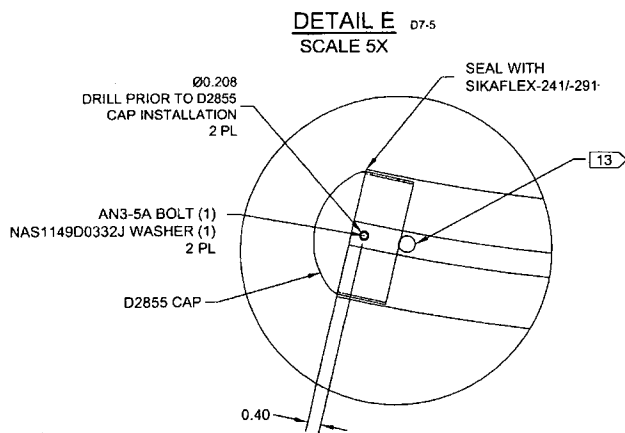
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

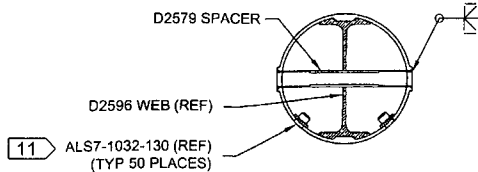
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D2580-045 ASSEMBLY DETAIL

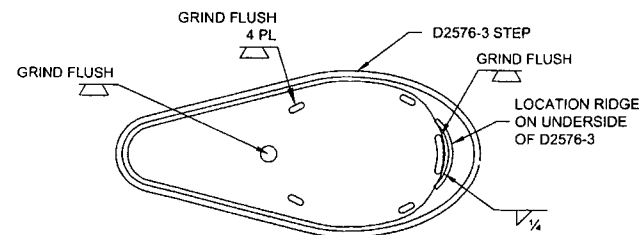


SECTION F-F D5-5 SCALE 5X



- AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:
1. CHAMFER HOLE 0.050 X 45°
 2. INSERT D2579 SPACER (24 PLACES)
 3. WELD INTO PLACE AND GRIND FLUSH
 4. C'BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP

DETAIL G D3-5 SCALE 5X



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MFG. APPR.	N	D2580	SHEET 4 OF 8
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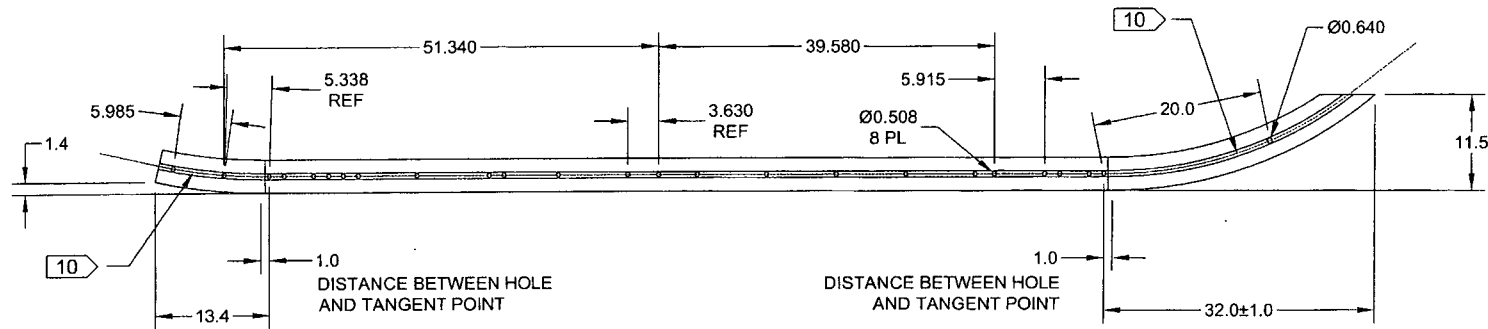
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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D2580-5 BENT TUBE
(MAKE FROM D2580-101 TUBE)

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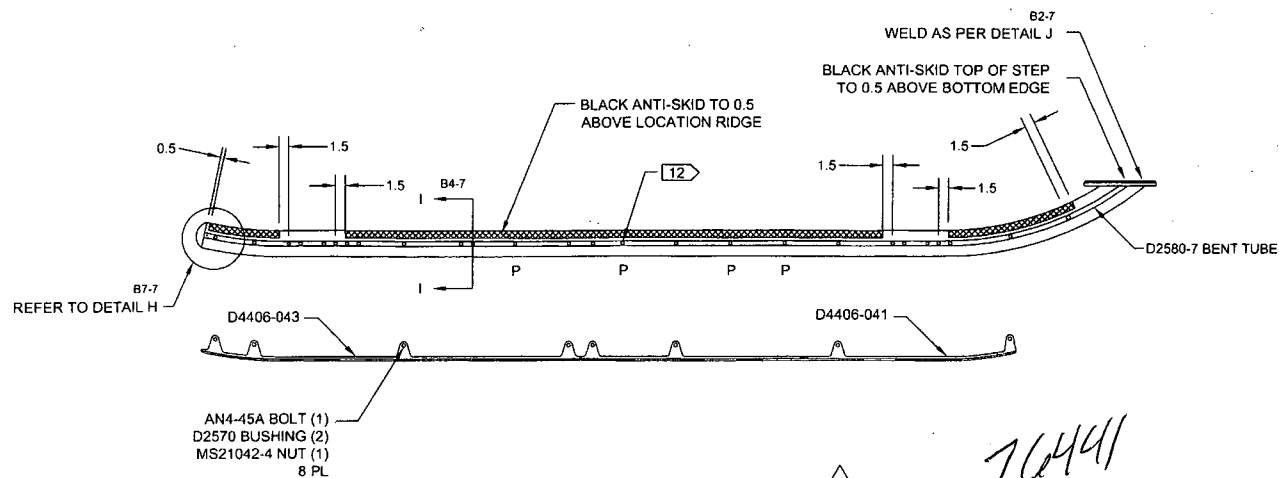
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

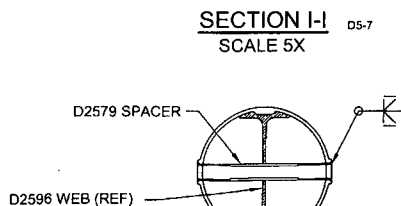
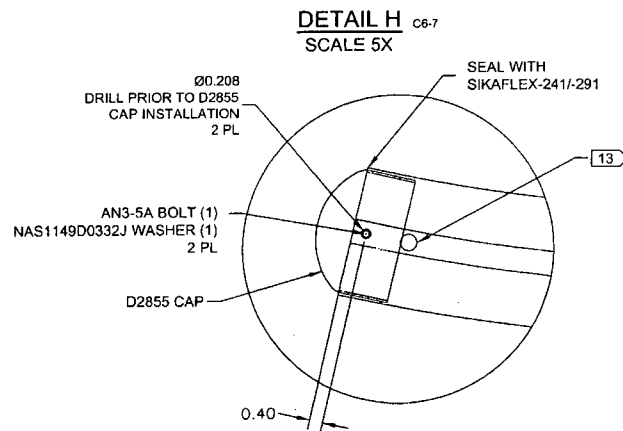
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

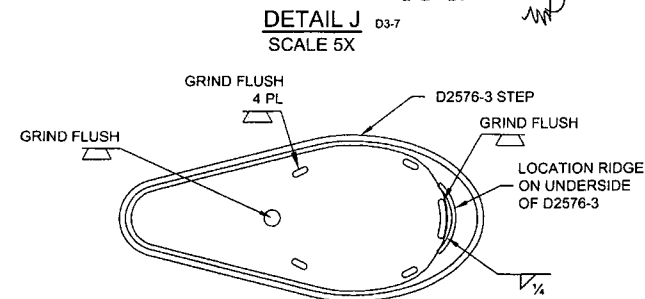
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D2580-047 ASSEMBLY DETAIL E



AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:
1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (25 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C.BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP



DESIGN	#	DART AEROSPACE LTD	
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MFG. APPR.	10	D2580	SHEET 6 OF 8
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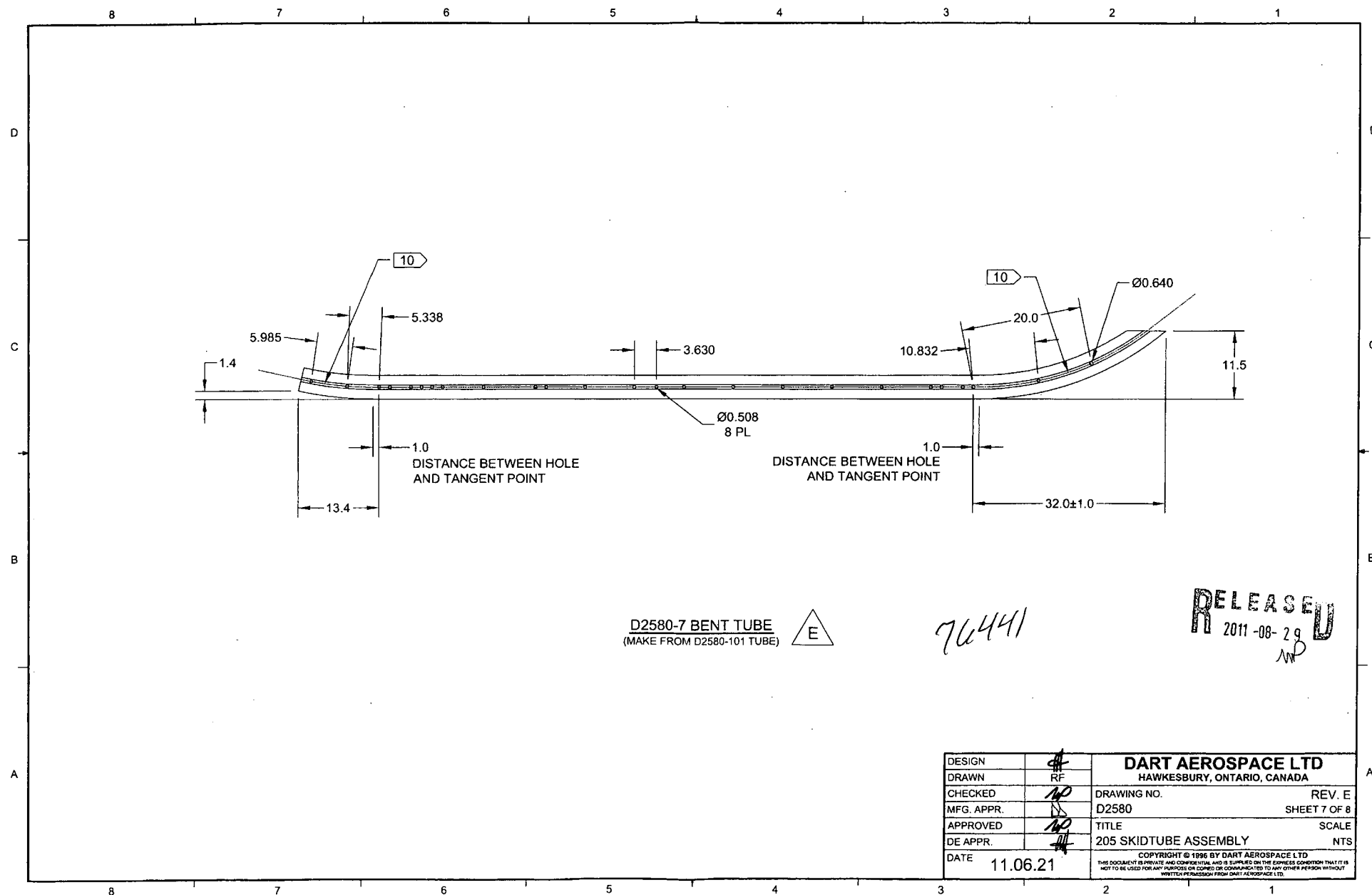
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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D2580-7 BENT TUBE
(MAKE FROM D2580-101 TUBE)



DESIGN	RF	DART AEROSPACE LTD	
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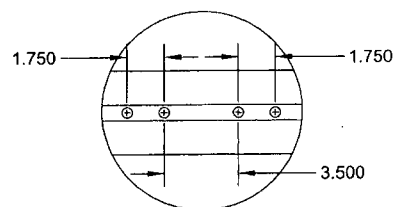
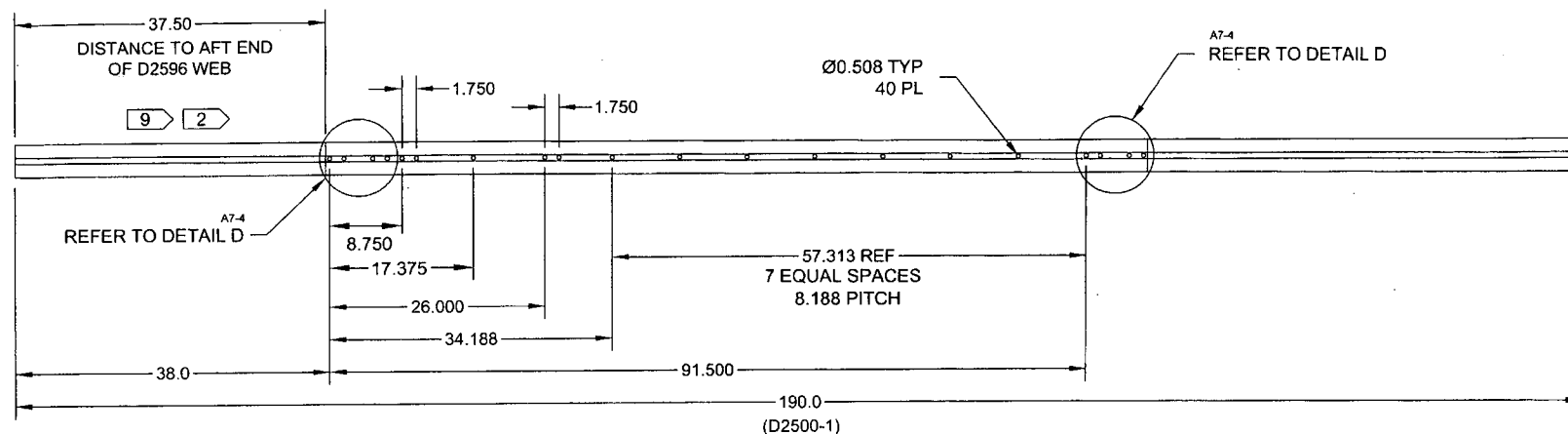
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DETAIL D D3-4
C7-4
SCALE 5X

D2580-101 TUBE

DESIGN	#	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
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CHECKED	10	DRAWING NO.	REV. E
MFG. APPR.	10	D2580	SHEET 8 OF 8
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 275

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliot
Job number: 76550
Part number: 205-634-041
Description: SKID Tube
Welding Process: Tig[☒] Mig[]
Base material: Alum
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier Sayed Saad Date of Test Coupon 11.11.22

Welder Barclay Elliot Date of Test Coupon 11.11.22

The above named individual is qualified in accordance with AWS D17.1.2001 to weld